
Final Report:
Transportation Scholar Accomplishments
for the Jamaica Bay Unit of
Gateway National Recreation Area

August 26, 2003 – April 25, 2003

Prepared for:

National Park Foundation

Jamaica Bay Unit
Gateway National Recreation Area
National Park Service

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ACRONYMS AND ABBREVIATIONS

ADA	Americans with Disabilities Act and its amendments
CY	Calendar Year (January to December)
BPD, NSD, WRD	The 3 districts of Jamaica Bay Unit: Breezy Point D., North Shore D., Wildlife Refuge D.
FLH	Federal Lands Highway
FMSS	Facility Management Software System
FY	Fiscal Year (October to September)
Gateway NRA	Gateway National Recreation Area
GMP	Gateway NRA's General Management Plan dated August 1979
H.A.R.P.	Historic Airplane Restoration Project
JBU, SHU, SIU	The 3 units of Gateway NRA: Jamaica Bay Unit, Sandy Hook Unit, Staten Island Unit
MUTCD	Manual of Uniform Traffic Control Devices
NJ	New Jersey
NPF	National Park Foundation
NPS	National Park Service
NY	New York
N.Y.C., NYC	New York City
NYC DOT	New York City Department of Transportation
NYS DOT	New York State Department of Transportation
NYPD	New York City Police Department
PMIS	Project Management Information System
R ##	Runway ##
RAA, RTC	Rockaway Artists Alliance, Rockaway Theatre Company
RGG	Rockaway Gateway Greenway
RPA	Regional Planning Association
RVC	Ryan Visitor Center
SOP	Standard Operating Procedure
T - ##	Taxiway ##
USPP	United States Park Police

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EXECUTIVE SUMMARY

Scholarship Overview

One of five Proud Partner Transportation Scholarships for the 2002 award cycle was awarded to the author, Alixandra Demers, through the National Park Foundation. The scholar was matched with Gateway National Recreation Area, one of the seven national parks selected, which submitted a proposal also for the 2002 award cycle. The term of the scholarship was 8 months from August 26, 2002 to April 25, 2003. Based on performance and additional projects, the scholarship has been extended through June 2003.

Park Overview

Gateway National Recreation Area (Gateway NRA) is part of the National Parks of New York Harbor that also include Liberty Island, Ellis Island, and Governors Island. Gateway NRA is the largest of the parks, with more than 26,000 acres of land and water within its borders. The park is divided into three units for administrative and programming purposes: the Jamaica Bay Unit, the Staten Island Unit, and the Sandy Hook Unit. The Jamaica Bay Unit includes lands in both the boroughs of Brooklyn and Queens, New York. The Staten Island Unit is wholly located in Staten Island, NY and the Sandy Hook Unit is in New Jersey.

The projects discussed herein were primarily for the Jamaica Bay Unit (JBU). It is comprised of the following park areas:

In Brooklyn:

- Floyd Bennett Field
- Bergen Beach
- Concessionaire - tennis, driving range, mini golf, batting cages
- Concessionaire - marina
- Concessionaire - horseback riding
- Plumb Beach
- Canarsie Pier

On the Rockaways:

- Jacob Riis Park
- Fort Tilden
- Riis Landing
- Private Club – Silver Gull
- Private Club – Breezy Point Surf Club
- Breezy Point
- Concessionaire at Jacob Riis Park – executive pitch & putt golf

In Queens:

- Frank Charles Park
- Hamilton Park
- The Jamaica Bay Wildlife Refuge
- Spring Creek

As is evident from the mix of uses and disconnected nature of the parklands, Gateway NRA is not a typical national park. Instead, it is woven into the surrounding urban setting. Because of the spread out nature of the park, there were a number of transportation-related issues as discussed in the next section.

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Task Overview

Three general transportation tasks were outlined at the outset of this scholarship term:

- ❖ Develop plans for on-site transportation improvements,
- ❖ Assist in off-site transportation/transit improvement projects, and
- ❖ Downsize and green the Jamaica Bay Unit's fleet.

Within each task, one or more specific projects were assigned that are discussed in detail in this report.

OVERALL OBJECTIVES

- ❖ Create workable circulation plans for four areas of the JBU: Floyd Bennett Field, Jacob Riis Park, Fort Tilden, and Riis Landing.
- ❖ Develop ideas for improving access to the parklands and see these through to implementation.
- ❖ Improve the interconnectivity of Jamaica Bay Unit in part by participation in the Ferry System Implementation.
- ❖ Form a fleet management task force for the Jamaica Bay Unit that decides upon a fleet management plan and guides the downsizing and greening process. Task force actions include: assessment of the current fleet, creation of Standard Operating Procedures (to improve tracking, record keeping, and decision making), organizing staff training workshops, and developing and running focus groups to assess green product implementation and solve product problems.
- ❖ Assist in negotiating TH!NK *neighbor* vehicle delivery and coordinate their implementation.
- ❖ Gateway Green Team participation – transportation subcommittee (Green Team Plan elements – VMTs, TIAs, Fleet Mgmt), Climate Friendly Parks Initiative (emissions inventory JBU point person, workshop organizing committee).
- ❖ Use my training and background to inform and assist Gateway personnel through (1) personnel outreach (like the signs I post on my cubicle to inform passers-by of my work and meetings/workshops, (2) personnel training (like when I met with Ranger Krause once a week to train her on design and operation of an Access database), and (3) miscellaneous civil engineering work.

PROJECT STATISTICS

Table 1 Summary Statistics of Scholar's Projects

PARK AREA	PEOPLE SERVED ANNUALLY	OUTSIDE SUPPORT	TOTAL PRODUCTS
<i>On-site Transportation Improvements</i>			
Floyd Bennett Field Circulation Plan	* 1,609,000	1 FLH Transportation Study scoped. 2 FLH Design Projects scoped, estimated cost: \$900,000.	1 Database 9 Documents/Plans 6 Concepts 5 Sign Designs
Fort Tilden Circulation Plan	* 351,000	1 FLH Design Project scoped, estimated cost: \$325,000.	4 Sign Designs
Jacob Riis Park Circulation Plan	* 902,000	1 FLH Transportation Study scoped. 1 FLH Design Project scoped, estimated cost: \$200,000.	1 Existing Inventory 4 Concepts
Riis Landing Circulation Plan	(projected) 30,000	1 FLH Transportation Study.	1 Document
<i>Off-site Transportation/Transit Improvements</i>			
Metro Area Access			None yet.
Bus Shelters at Floyd Bennett Field			Negotiating.
Ferry System Implementation		Port Authority of NY/NJ applying for \$1 Million in FEMA funding for Floyd Bennett Field-Battery Park ferry service.	N/a
<i>Fleet Assessment and Management</i>			
Jamaica Bay Unit Fleet Management	** 230		1 Database, 10 Documents
TH!NK <i>neighbor</i> Vehicle Program	*** 550	Ford Motor Company donation of 53 vehicles (approximate value = \$300,000)	3
<i>Smaller Projects</i>			
Federal Lands Highway Project Scoping	* 4,129,100	(see "FLH" items listed above)	N/a
Other Vehicle Donations	*** 550		2 Documents
Presentation to 2003 Transportation Interpreters	36		Under development
Civil & Transportation Engineering Project for JBU	*** 550		1 Document, Projects
Gateway Green Team, Jamaica Bay Unit Green Team	* 10,201,300		2 Projects
Archery Shade Structure Design	* 1,609,000		In design.
Program Information & Visitor Statistics Database	12 JBU Employees		1 Master Database, 5 replications
Total	10,231,550	Approx. \$2,725,000	56

* Based on CY 2002 visitor population statistics for Gateway NRA, rounded to the nearest thousand.

** Based on Jamaica Bay Unit employment statistics for summer 2002, rounded.

*** Based on Gateway NRA employment statistics for summer 2002, rounded.

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INTRODUCTION

Scholarship Overview

One of five Proud Partner Transportation Scholarships for the 2002 award cycle was awarded to the author, Alixandra Demers, through the National Park Foundation. The scholar was matched with Gateway National Recreation Area, one of the seven national parks selected, which submitted a proposal also for the 2002 award cycle. The term of the scholarship was 8 months from August 26, 2002 to April 26, 2003. Based on performance and additional projects, the scholarship has been extended through June 2003.

Park Overview (add text discussing the 1979 General Mgmt Plan)

Gateway National Recreation Area (Gateway NRA) is part of the broader New York Harbor parks system that also includes Castle Clinton, Liberty Island, Ellis Island, and Governors Island. These parks are shown in Figure 1. Gateway NRA is the largest of the parks, with more than 26,000 acres of land and water within its borders. It was initially developed in 1972, 2002 being its 30th anniversary, from several land donations in both New York and New Jersey. The park is divided into three units for administrative and programming purposes: the Jamaica Bay Unit, the Staten Island Unit, and the Sandy Hook Unit. The Jamaica Bay Unit includes lands in both the boroughs of Brooklyn and Queens, New York. The Staten Island Unit is wholly located in Staten Island, NY and the Sandy Hook Unit is in New Jersey.

The projects discussed herein were primarily for the Jamaica Bay Unit (JBU). This unit encompasses approximately 10,000 acres of land and water. It is comprised of the following park areas grouped into 3 districts:

❖ Breezy Point District

- Breezy Point – coastal fishing area and piping plover nesting area at the southern tip of the Rockaways.
- Fort Tilden – a military installation that was actively used between World War I and the Vietnam War. It is now home to artists and performers while also offering a community garden, playing fields, trails, and beaches for fishing.
- Jacob Riis Park – one of the prime beaches in the City with recreational facilities including pitch-and-putt golf (concessionaire), basketball, handball, and paddle ball courts, playgrounds, picnic areas, and the famous Jacob Riis Bathhouse.
- Riis Landing – U.S. Coast Guard Station (small) Rockway is being turned over to Gateway NRA.
- Silver Gull Beach Club Concessionaire – one of two private clubs open during the summer season offering beach facilities, eatery, and tennis.
- Breezy Point Surf Club Concessionaire – one of two private clubs open during the summer season offering beach and swimming pool facilities, a variety of eateries, recreation including baseball, soccer, basketball, volleyball, bocce, and tennis, and more than 800 accommodations ranging from cabanas to cabanettes to bath cabins. Fifty-nine acres.

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Figure 1 Gateway National Recreation Area, New York & New Jersey

Image by: National Park Service, August 2001

❖ North Shore District

- Bergen Beach – a small beach on Jamaica Bay with tidal wetlands and mudflats.
- Floyd Bennett Field – the city’s first municipal airport that played a key role in World War II as a naval air station. The airfield includes playing fields, trails, the Historic Airplane Restoration Project, a remote control airplane flying field, educational facilities, one of the largest community gardens in the U.S., and a small research library.
- Gateway Marina Concessionaire – marina in Dead Horse Bay.
- Gateway Sports Concessionaire – batting cages, mini-golf, tennis courts, golf driving range west of Floyd Bennett Field.
- Plumb Beach – a small drive-to / bike-to beach area with a local clientele.
- Riding Academy Concessionaire – Horseback-riding facility east of Floyd Bennett Field.

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❖ Wildlife Refuge District

- The Jamaica Bay Wildlife Refuge – an important stop on the Atlantic Flyway for approximately three hundred types of birds including both salt and fresh water ponds and marshes.
- Canarsie Pier – popular fishing spot with a restaurant on-site
- Frank Charles Park – local park in the Howard Beach neighborhood of Queens, NY.
- Hamilton Beach Park – local park in the Hamilton Beach neighborhood of Queens, NY.
- Spring Creek – inter-tidal salt marshes and coastal grasslands in northern section of Jamaica Bay.

In Figure 2, the various areas that make up the Jamaica Bay Unit of Gateway NRA are labeled. As is evident from the mix of uses and disconnected nature of the park, Gateway NRA is not a typical national park. Instead, the individual park areas run the gamut from being local, neighborhood-type parks to city and state-type parks, all of which happen to be a part of the larger national recreation area. The different components are spread across two boroughs and two primary landmasses (Brooklyn/Queens and the Rockaways). As such, traveling to and between each of the park areas is a major concern of the Jamaica Bay Unit's administration.

Task Overview

SYNOPSIS OF TRANSPORTATION SCHOLAR'S GENERAL CHARGE

At the Jamaica Bay Unit of Gateway National Recreation Area, Alixandra Demers, a 2002 Proud Partner Transportation Scholar, is assisting the park staff through three major tasks as well as performing select park-wide actions. First, she is developing multi-modal traffic circulation plans and a set of wayfinding system guidelines for four areas of the park: Floyd Bennett Field, Jacob Riis Park, Fort Tilden, and Riis Landing to improve visitor safety and wayfinding. Second, she has created and is facilitating a Fleet Management Task Force to develop a fleet management plan and guide the downsizing and greening process of Jamaica Bay Unit's fleet while designing a fleet database capable of tracking procurement, maintenance, and assisting in fleet assignment. Third, she is exploring ways to improve visitor access to the Jamaica Bay Unit via transit and other modes (such as dollar vans or a cooperative agreement with a rental car chain), especially focusing on metropolitan regions that do not have good access to transit. Gateway-wide actions that Ms. Demers is involved in include, planning the delivery and placing into service 53 **TH!NK neighbor** electric vehicles donated by Ford, actively participating in the Gateway Green Team on the Transportation Management group to increase sustainability efforts throughout the park, and furthering the key Gateway NRA master plan component of instituting ferry service between the three park units (Jamaica Bay Unit, Staten Island Unit, and Sandy Hook Unit) and major New York City/ New Jersey ferry hubs.

OVERALL OBJECTIVES

❖ On-site Transportation Improvements

- Circulation and signage inventories, evaluations, then plans for Floyd Bennett Field, Jacob Riis Park, Fort Tilden, and Riis Landing

❖ Off-site Transportation/Transit Improvements

- Metro Area Access and Ferry System Implementation

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❖ Fleet Assessment and Management

- Jamaica Bay Unit fleet inventory, analysis, and management overhaul; Gateway-wide TH!NK *neighbor* vehicle donation and implementation; pursuit of alternative transportation vehicle donations

PROJECT STATISTICS

The largest strides were made on the Floyd Bennett Field Traffic Circulation Study project for the On-Site Transportation Improvements task. Not only was the sign inventory completed, but an extensive report written, several concepts developed, and sign designs for the front gate developed. Significant strides were also made on the Jamaica Bay Unit Fleet Management project with the fleet fully cataloged in a newly created database and work on a new management policy begun. The smallest strides were made on the Metro Area Access project for the Off-site Transportation/Transit Improvements task which does not require my transportation engineering and planning expertise as much as it requires a first-rate negotiator and deal-maker.



Figure 2 Jamaica Bay Unit, Gateway National Recreation Area, Brooklyn & Queens, New York
Image by: National Park Service, August 2001

TASK A ON-SITE TRANSPORTATION IMPROVEMENTS

Overview

Existing and proposed sign plans are being developed for each site with the proposed plans presented for discussion before final plans and signage/stripping design work can be done. Key is a revamping of the current interpretive, directional, informational, and regulatory signing throughout and between the parcels of the park for improved wayfinding and to meet the incoming NPS sign regulations as described in the UniGuide (scheduled release date: Fall 2003). In addition, at Floyd Bennett Field the current circulation patterns are not seen as ideal so an in-depth traffic circulation study was undertaken. Also at the airfield there are several construction projects in the works as well as some offices/ activities being relocated. In addition, ferry service will be a reality in the next year or two so new plans are of the utmost importance to make the whole shebang work. Lastly, special emergency plans must be developed to accommodate the U.S. Park Police, NYPD, Coast Guard, and Armed Forces Reserves as all have a presence in one or more parts of the Jamaica Bay Unit.

Table 2 Statuses of Sign Inventories & Sign Plans

Site	Data Collection	Data Entry	Verification	Existing Sign Plan	New Concepts	Sector Plans	Final Plans
Floyd Bennett Field	✓	✓	✓	✓	✓	Front Gate	
Fort Tilden	✓					Rules, Parking	
Jacob Riis Park	✓	✓					
Riis Landing							

Obstacles

Although the UniGuide is becoming the National Park Service sign standard, Gateway NRA is ahead of the curve by having this Scholar develop new sign plans. Since the UniGuide software program will not be available until at least Fall 2003, the Scholar saw creating a menu-driven, fully searchable and sortable database as a crucial step for the sign inventory. Furthermore, she researched a final draft copy of the UniGuide text (931 pages!) to develop by hand the appropriate signs and sign plans instead of having access to a software program that is supposed to guide the designer through the process.

Budget cuts force noncompliance with the UniGuide because the multitude of colors and high quality sign materials are unaffordable in the short term. Therefore, the sign layouts generally conform to the

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UniGuide but only brown and white are painted on thin sheet metal signs that the park will back with less-expensive plywood for added strength and durability.

Without GPS receiver equipment, nor GIS access, the Scholar wrote sign location descriptions instead of having latitude/longitude readings that could be linked to a map with GIS software.

Products

My office has become the depository for signage information. We have approximately 700 signs around the Jamaica Bay Unit (not including indoor signs!). Here is what I have available and what will be available:

(1) Sign Inventory Tracking Database - This is an MS Access 2000 database created by the author to record information about all existing traffic and information signs (location, size, colors, text and symbols, materials, and so forth) in addition to enabling entry of future signs and recording both procurement and maintenance of all signs. This database was created to speed data entry and retrieval until the new UniGuide sign software is released by the NPS (projected release date is Fall 2003). The Sign Inventory Tracking Database includes menus for navigation, data entry forms, a variety of reports including the NPS Form 10-47 (see next section for description), and queries to search the database. Photos of signs can be imported onto the forms as they are taken. At the time of this writing, the author has entered over 400 signs into the database for the Jamaica Bay Unit. A copy of the database, with just a few signs entered for viewing, is in Appendix D. People served: Jamaica Bay Unit staff, especially the District and Facilities Managers.

The database is menu-driven with most typical reports pre-designed. So for example, if the Unit wanted to transfer data from the sign database into Maximo (the new Facility Management Software System), then one could print a report with all relevant data and enter it into Maximo. Digital photos are available for a limited number of the signs, however, they make the database excessively large; therefore, the photos will be attached once it is decided who will operate it and where it will be housed once the author finishes her term.

(2) 3 Binders of sign photos for various parts of the park - I have collected binders from JBU Assistant Superintendent Dave Avrin, BPD Manager Alex Romero, and Park Ranger Jose Ramirez that show signs at Canarsie Pier, Spring Creek, the Wildlife Refuge, Breezy Point, and a few other locations. Since exact locations are not specified at each site and I have not verified this data yet, I have not entered it into the sign database. About half of the photos are available in digital format and can easily be added to the database.

(3) Existing Sign Plans of the three major areas of the park that I am tasked with inventorying for signs: Floyd Bennett Field, Jacob Riis Park, Fort Tilden/Riis Landing. The Asset ID numbers associated with each sign in the database are geo-referenced on a 24" x 36" plan for each area. Currently, Floyd Bennett Field is completed and both Engineering Technician Dominic Pontillo and I have copies of this FBF Existing Signage plan and the accompanying Sign Database output (on NPS Form 10-47). Once copies of Jacob Riis Park are obtained, I will create the JRP Existing Conditions Sign Plan and distribute a copy to Dominic along with the database printout for JRP.

(4) Proposed Sign Plans - For each of the three areas listed in (3) I am creating proposed sign plans to improve wayfinding - all of these are in the works. On a smaller scale right now for installation by summer, I am working with BPD Manager Alex Romero to redo the Fort Tilden parking lot signs and regulation signs, and I am working with NSD Manager Pete McCarthy on new signs for the Ranger Contact station at the FBF front gate. There is also a need to sign the Wildlife Refuge for drivers coming from the Rockaways.

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(5) UniGuide Sign Manual and Software - With the coming of the UniGuide Software, my project work has been somewhat changed. The 1988 NPS Sign Manual is being replaced by the UniGuide Sign Manual and an accompanying software package (combining databasing and sign plan creation capabilities). The UniGuide differs from the 1988 manual by requiring signs of various types follow strict design guidelines that include fonts, colors, symbols, sizes, materials, and installation changes. These signs are more colorful and much more costly (about double). The database I have created and all the data it houses will require entry into the UniGuide software when it is released sometime in Fall 2003. In January, I obtained a final draft copy of the UniGuide Sign Manual (no software included). The CD-ROM is now in possession of NSD Manager Pete McCarthy (since he is a CD burner) and it is on my harddrive. I am laying out proposed sign locations and text; with the upcoming software, this information can be translated into appropriate UniGuide sign formats (colors, fonts, sizes, symbols, materials, . . .) with relative ease (as promised by the developer). One thing that should be considered when entering the existing signs into the UniGuide system is using a GPS to locate all the signs (speed, accuracy), a digital camera for photos, and overlaying this information on plans or aerials from the GIS department.

(6) PMIS entry for Sign Replacement (PMIS 93225)- As many of you might be aware, there was a PMIS entry done by Management Analyst Mark Colburn for JBU sign replacement. I estimated the sign count for him based on the binders and my collected data. With approximately 700 signs to manage and convert to the UniGuide system, it is a costly venture that we hope can be all or partly funded through this program in future years.

Project 1 Floyd Bennett Field Traffic Circulation Study

Overview

At the Jamaica Bay Unit, the unit with the most parcels, improved traffic circulation and safety has been designated a high priority. Currently, several parts of the park are undergoing big changes in terms of use and/or facility construction and rehabilitation. As such, current circulation plans are being reviewed to assess how they meet current needs and whether the plans can adapt to new and/or rearranged uses; revised circulation plans are being developed accordingly.

The primary focus at Floyd Bennett Field is improved signage and circulation for drivers and on-road bicyclists; pedestrian and bicycle facilities were briefly reviewed. Additionally, visitor safety was addressed in terms of driver speed management. The 1979 General Management Plan was reviewed carefully and its current relevance determined. Through field reconnaissance a sign inventory was conducted and current traffic patterns observed. After completion of an Existing Signage plan, alternative traffic circulation plans were sketched based on a series of goals. To improve transportation circulation throughout the airfield three primary goals were to be followed: designate activity zones (education, visitor, industrial), separate traffic routes based on both user type and zone, and provide clear wayfinding.

Concept plans, a report, and a presentation were developed for this project. The report describing the study starts with background information and a review of existing conditions, including a sign inventory. Additionally, the opportunities and constraints of the site are itemized. To assist the reader in understanding circulation plan design, the organizing principles of circulation pattern types, parking plans, and wayfinding systems are described and illustrated. In addition, site-specific recommendations are outlined for future bicycle facilities, transit, and security. Next, the various concept plans are compared against the goals and each other, then a preferred plan is recommended.

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OBJECTIVES

- ❖ Inventory the traffic-related signs at Floyd Bennett Field.
- ❖ Catalog the inventoried signs and create an Existing Sign Plan.
- ❖ Meet with staff to determine key circulation plan and signing needs beyond those recognized through the inventory and field reconnaissance.
- ❖ Develop a variety of concept plans that are flexible depending upon the event and traffic generated, can adapt to new uses, assist in creating zones of activity, and separate visitor traffic from other types.
- ❖ In an accompanying report, discuss the history as it pertains to the park's planning of Floyd Bennett Field, the guiding principles for the proposed concept plans, compare and contrast the concept plans, and recommend a plan of action.
- ❖ Upon the park choosing a final concept plan, develop a Proposed Sign Plan.

Products

Sign Inventory Field Notes: A Floyd Bennett Field plan that I marked up during the process of field reconnaissance to note all sign locations, text, colors, and orientations.

(1) Form 10-47 Sign Survey and Inventory – 1 (Descriptive Data): Template created as a part of the traffic circulation task and submitted upon request to the Washington Administration Program Center for inclusion in the NPS forms website. People served: potentially 1-2 NPS employees per national park.

(2) Form 10-48 Sign Survey and Inventory – 2 (Historical Data): Template created as a part of the traffic circulation task and submitted upon request to the Washington Administration Program Center for inclusion in the NPS forms website. People served: potentially 1-2 NPS employees per national park.

(3) Existing Sign Plan – September 10, 2002: 24" x 36" plan of Floyd Bennett Field with the existing sign locations and directional orientations shown and numbered to correspond with the database-assigned identification numbers of each sign. The associated Form 10-47, with all existing signs, as created from the Sign Inventory Tracking Database was printed out.

(4) Floyd Bennett Field Traffic Circulation Study, Draft – September 2002 and Final Draft – January 2003: Report researched and written by the Scholar detailing the existing transportation system conditions and then six proposed alternatives for the airfield including discussions of the roadways, bike facilities, sidewalks, and signage. I performed all data collection (sign inventory, road/transportation facility observations), data reduction, concept design, and report writing. The report includes two appendices including the existing sign inventory and a proposed short-term sign inventory. Six 24"x36" concept plans were developed as a part of this report and can be viewed in Appendix B. The Final Draft report includes extensive background information about how these plans tie into Gateway NRA's General Management Plan, plus discussion of how a circulation plan is formulated. The final draft report is in Appendix B.

(5) Floyd Bennett Field Traffic Circulation Study Presentation – January 29, 2003: PowerPoint slides, 24" x 36" concept plans, handouts, meeting notes. 1.5 hour presentation.

(6) Front Gate Sign Changes – April 2003: The NSD Manager requested I design new signs for the front gate to highlight the Ranger Contact station. Approximately 5 signs have been proposed and presented to the NSD Manager and Assistant Superintendent of Planning. A meeting is scheduled in May to review and finalize the sign designs.

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(7) Technical Memorandum: Review of Traffic Circulation Plans 1-A through 4-B – April 25, 2003: The JBU Superintendent (now General Superintendent of Gateway NRA) submitted 8 alternative concept plans of his own for consideration. This technical memo outlines my comments regarding his plans.

Milestones

August 26, 2002	Project Initiation. Briefing and tour.
September 10, 2002	Sign inventory completed
December 12, 2002	Federal Lands Highway Project Scoping
January 17, 2003	Final report draft submitted to JBU Superintendent
January 29, 2003	Presented concepts from report to a meeting of JBU North Shore District Staff
February 28, 2003	JBU Superintendent Garrett submits 8 alternate designs of his own for review
March 26, 2003	Front Gate sign designs completed; submitted to Asst. Sup. Soller & NSD Manager McCarthy for review.

Anecdotes (excerpt from the Final Draft report)

Just as people need to find the park, they need to find whatever else they are looking for. My office at Floyd Bennett Field is assigned the old “Receptionist & Information” phone number for all of Gateway NRA. With this phone number I have learned a lot about good and bad information and how that translates into reaching a destination. For example, at least once a day, every other day, I receive a phone call from a person hoping to speak with the Immigration Department. These calls technically are not wrong numbers because the caller was connected to me by first calling *Information* and requesting the number. They always tell me they have called *Information* and quote my number, so where is the disconnect? To double-check, I have searched my office number on various white page reverse look-up listings and Gateway NRA/Floyd Bennett Field is the only listing. Therefore, either *Information* is using a database I do not have access to that wrongly lists the number, or there is some miscommunication/misunderstanding between the caller and *Information*. Unfortunately, in the latter case I cannot solve the initial problem nor stop it from occurring, however, I can redirect the lost caller. In the former case, a simple solution exists to permanently rectify the problem – report the incorrect listing to *Information* and request it’s correction. This number-finding process is very much like the way-finding process to locate a park or an area within the park. The driver, bicyclist, or pedestrian is following the park’s signage to find their destination. If they do not arrive at their destination by following the signs, then there may be some missing information, such as one of the following:

- missing information on a particular sign,
- a poorly placed sign – one that is often missed because it is in an unexpected location,
- too much distance or too many decision points (intersections) between the last sign and next sign listing a particular location, or, lastly,
- no sign or obvious indicator that the correct location has been reached.

On the other hand, the information may be on the signs but not understandable to many visitors. For example, while walking around Floyd Bennett Field, I regularly am asked by drivers where this or that activity is located because they tried to follow the signs but did not end up in the right place. When discussing what happened I either found a missing information issue or that there was a symbol or abbreviation they did know. As in the case of a sign that states “RC Flying Field” – the whole place is an

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airfield so is this referring to an active runway? An historic location? Or where Remote Control airplane enthusiasts may fly their planes? It is the last one, but not everyone catches the abbreviation, as I have been stopped quite a few times for this question.

From these interactions, as well as a detailed sign inventory, I discerned where the disconnects were in the park's current signage plan. Signage around Floyd Bennett Field rarely seemed to tell people at one activity how to find another activity – more simply put, following the signs may have routed visitors in but it often did not route them out of the park or between activities.

Project 2 Fort Tilden Circulation Plan

Overview

Fort Tilden is located on the Rockaway Peninsula in Queens, New York. The fort was an active military site from World War I through the Vietnam War. Nowadays, the fort supports an artist and performer community, the Rockaway Artists Alliance, a community garden, and recreational opportunities including fishing, picnicking, bicycling, and organized sports (cricket, little league, rugby, soccer).

The current road system in Fort Tilden is a tight grid network at the developed western end and a sparse network through the delicate sand dunes, historic batteries, and beachfront. The beachfront and batteries are accessible via a pedestrian trail network.

Early concept plans for Fort Tilden and the adjoining park areas of Jacob Riis Park and Riis Landing were based on the study by the Regional Plan Association (RPA) entitled *A BEACH AND MUCH MORE*. In addition, the associated document by Jeff Zupan of the RPA, *TRANSPORTATION GAP STUDY – Opportunities for Better Access to Gateway National Recreation Area*, was most helpful in guiding next steps. Final concept plans will include some of these ideas as well as new ideas discovered while living at the park.

OBJECTIVE 1 – ORGANIZE PARKING (TEAM EFFORT)

The limited parking and the related traffic congestion are the biggest transportation issues at Fort Tilden. On a nice summer night, hundreds of people can be at this park site to participate in or watch one of the ball games, to watch a performance by RAA, to go on a Ranger-led activity, or simply to fish. To control the parking situation within Fort Tilden during peak activity times, parking permits have been issued in the past for a small fee. The objective was to review the parking lot rules and reorganize which permits were allowed in what lots during the various time periods, then create signs conveying this information and post them prior to the 2003 summer season. The group of decision-makers included:

- ❖ The Breezy Point District Manager and Rangers with first-hand knowledge of the parking situation.
- ❖ The U.S. Park Police for their input on what can be enforceable and what sign messages currently cause their officers confusion.
- ❖ The Jamaica Bay Unit Assistant Superintendents, and
- ❖ The Transportation Scholar for sign placement and design expertise.

New permitting rules were established including the elimination of the “Activity Permit” since it seemed to cause the most confusion and non-compliance without having a clear purpose. Then new parking lot rules (including what permits were allowed where and when) were established. Moreover, it was decided that Shore Road, the primary East-West route along the beach was to be closed to vehicles this summer to reduce illegal parking and beach activity. From the new regulations, the Scholar researched the UniGuide

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then designed new parking lot signs and new park regulation signs with input from the BPD Manager. After minor design modifications to meet tightened budget constraints, the signs are being ordered from a local vendor.

OBJECTIVE 2 – SIGN INVENTORY & PROPOSED SIGN PLAN

All traffic, directional, and informational signs relating to finding a destination in Fort Tilden were to be inventoried and then evaluated for correctness, clarity of message, and location. A new sign plan was to be proposed to complete this objective.

Over 2 days, approximately 125 signs were recorded during field reconnaissance of Fort Tilden. These existing signs are currently being entered into the Sign Inventory Tracking Database for record-keeping and analysis. By the end of my extended term, all existing signs will be in the database and marked on an existing conditions sign plan. In addition, a proposed sign plan should be developed.

Products

(1) Parking lot and general park regulation sign designs and locations list – April 2003: Sign designs researched and created by the Scholar modifying the UniGuide sign designs to meet the tight budget of the Breezy Point District (limited colors and materials). The sign designs were reviewed and modified by the BPD Manager and the Asst. Superintendent of Operations.

(2) Sign Inventory Field Notes: Two Fort Tilden plans that I marked up during the process of field reconnaissance to note all sign locations, text, colors, and orientations.

Milestones

September 3, 2002	Project Initiation.
December 2, 2002	Field reconnaissance completed
December 5, 2002	Fort Tilden parking permit meeting
April 28, 2003	Parking & General Regulation signs finalized by Asst. Sup. Dave Avrin, BPD Manager Romero, and Scholar.

Project 3 Jacob Riis Park Circulation Plan

Overview

Jacob Riis Park is located in the Rockaways adjacent to Fort Tilden and across the Jamaica Bay from Floyd Bennett Field. It offers one of the largest beaches within New York City's limits, over 1 mile in length, with 14 lifeguarded swimming bays and a variety of recreational opportunities from pitch & putt golf to ball fields to hand ball courts. Jacob Riis Park is accessible by car, public bus, walking, and bicycling. Jacob Riis Park is a free park except for parking fees (Memorial Day to Labor Day) and the pitch & putt golf concession.

OBJECTIVE 1 – SIGN INVENTORY

Over approximately 4 days I drove and walked all of Jacob Riis Park to record more than 300 signs related to traffic and wayfinding on the roads, walkways, parking lot, beach, and boardwalk. It took about another full week to enter all the Jacob Riis Park signs data into the database. The existing sign plan will be created as soon as copies of the site plans are issued to me. During the field inventory, I also made

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notes regarding where signs were needed and what information they should convey. Moreover, the best routes for people to reach an activity were mapped and the condition of some travel facilities noted. These notes become the basis for recommending changes in Objectives 2 and 3.

OBJECTIVE 2 – PROPOSED SIGN PLAN – PEDESTRIAN FOCUS

Jacob Riis Park is a large park, and with basically one parking lot, people are expected to leave their cars and navigate the park on foot. However, the current signage is inadequate. Most destinations are marked, however, besides the gigantic “To the beach” signs in the parking lot (approximately 10’ x 8’) there really are not signs guiding pedestrians to their activities. Therefore, the objective is to propose a sign plan that improves the ability of newcomers to find their way around the park. At this time, the proposed plan is currently under design with a tentative completion date at the end of June 2003.

OBJECTIVE 3 – ORGANIZE THE PARKING LOT, CONCEPTS FOR DECREASE IT’S SIZE

Have you ever stood in the center of a sea of pavement equal in size to 75 football fields? One of the biggest traffic concerns at Jacob Riis Park is the enormous 9,000-space parking lot. It has rarely filled up with vehicles since the park’s heyday in the 1950’s, leaving lots of open space for drivers to roam – with few obstructions. Nowadays, the busiest weekends at the beach see upwards of 4,000 vehicles parked in the lot. Therefore, one of the goals for studying Jacob Riis Park was reducing the pavement area and organizing the lot so people can find and then park nearest their destinations.

Aside: A reduction in pavement area also has a considerable positive impact on the surrounding environment by reducing “heat islands” or areas of land that collect more heat than natural lands by virtue of their material make-up, here asphalt and concrete collect more heat than grasslands.

To this end, I have observed the parking lot’s operations during the off-season to determine where regular visitors find it most convenient to park for various activities. It is clear that there are 4 primary parking zones: fishermen at the north side, golfers at the west end, and beachgoers in one of two south sections. Therefore, I plan to offer a few designs that organize the traffic and parking spaces through different means or combinations thereof (signs, striping, barriers/islands, removal of pavement). So far, one sketch is complete that pokes fun at the size of the parking lot using a sea metaphor for the sign messages such as “Welcome to the Sea of Parking”, “Please float to your parking space at 5 mph”, and so forth. Future sketches will more seriously address the situation and offer solutions.

Products

- (1) Sign Inventory Field Notes: A Jacob Riis Park plan that I marked up during the process of field reconnaissance to note all sign locations, text, colors, and orientations.
- (2) Existing Sign Plan – March 27, 2003: Form 10-47, with all existing signs, as created from the Sign Inventory Tracking Database was printed out. The associated 24” x 36” plan of Jacob Riis Park with the existing sign locations and directional orientations shown and numbered to correspond with the database-assigned identification numbers of each sign has not yet been prepared because large plans are unavailable at this time.

Milestones

- | | |
|-----------------|--------------------------------|
| August 28, 2002 | Project Initiation. |
| October 7, 2002 | Field reconnaissance completed |

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March 24, 2003 JRP Rotary alternative designs sketched, issues noted
March 27, 2003 Sign inventory completed

Project 4 Riis Landing Circulation Plan

Overview

Riis Landing is a new park site that is being transformed from a U.S. Coast Guard station to a ferry hub. In the park's General Management Plan, ferry service was a key component of the transportation system. Riis Landing is on the bay side of the Rockaways directly across Rockaway Point Boulevard from Fort Tilden. The parcel is fully developed with several buildings, a main parking lot for approximately 100 cars, and boat docking facilities. There are no undisturbed, natural lands at Riis Landing. This summer, boat excursion trips will continue and ferry service will begin between Riis Landing and Battery Park, Manhattan for both park visitors and commuters. In the near future, a new floating dock will be constructed. Further in the future, one of the buildings may be converted to a restaurant while another may become a small bed and breakfast conference center to create a dynamic destination.

OBJECTIVE 1 – REVIEW THE LAND SIDE PLANS FOR RIIS LANDING'S RECONSTRUCTION

The landside plans as presented by the site engineer basically provided for a ticket booth and a parking lot laid out with islands and striping. The Scholar reviewed the plan and wrote a short review as well as marking up a copy of the plan. Recommended were more pedestrian facilities, ADA wheelchair ramps, and a reconfigured lot for improved safety.

OBJECTIVE 2: CREATE EXISTING AND PROPOSED SIGN PLANS

All traffic, directional, and informational signs relating to finding a destination in Riis Landing will be inventoried and then evaluated for correctness, clarity of message, and location. A new sign plan will be proposed to complete this objective. The Scholar plans to inventory this site in May 2003, then creating both existing and proposed sign plans to meet the needs of the new ferry service and existing excursion activities.

Products

(1) Review and comments of the landside site plan for Riis Landing – September 2002:

(2) Sign Plans - none as of this writing. Both existing and proposed sign plans are to be developed by July 2003.

Milestones

September 3, 2002 Project Initiation.
September 5, 2002 Reviewed and commented on Riis Landing Construction Plans.

TASK B OFF-SITE TRANSPORTATION/TRANSIT IMPROVEMENTS

Project 5 Metro Area Access

Overview

Off-site Transportation/Transit Improvements. In a few weeks, a Transportation Gap Study will be completed for Gateway NRA by the Regional Planning Agency. Using that study, I plan to look into ways to close those gaps. One of the ideas we have been batting around is a dollar van cooperative agreement.

According to a Regional Plan Association (RPA) study, some areas of Brooklyn and Queens are poorly served by public transit, making park visits unlikely unless the residents own a car. Therefore, these area residents are unable to enjoy the largest park in the city and all it has to offer. Therefore, it seemed worthwhile to pursue agreements with car rental agencies located in or near those areas to give the underserved residents another transportation option. Unfortunately, there are significant obstacles to this idea. First, there are almost no car rental agencies listed in the underserved areas. Car rental agencies are located at the airports and in midtown Manhattan. Second, many residents do not know how to drive.

The second idea being pursued is to set up a dollar-van concept. There are some leads for this concept, but as of yet time has not been available for me to pursue the idea beyond the discovery phase.

Milestones

August 29, 2002 Project Initiation.

September 2002 Regional Plan Association reports reviewed
Review of existing transit routes to/from and between districts.

Project 6 Bus Shelter Installations at Floyd Bennett Field

Overview – Difficulties of a Simple-Looking Project

Public transit buses serve most of the Jamaica Bay Unit. Adjacent to Floyd Bennett Field on Flatbush Avenue, there are two bus stops in each direction along the park's frontage. At this time, only one bus stop has a shelter – this stop is at the main entrance to Floyd Bennett Field. The objective is to repair or replace the existing shelter and add a new shelter near the Ryan Visitor Center.

At the main entrance to the airfield, there is a concrete block, 3-sided structure, approximately 18 feet by 10 feet in size, with a crumbling roof serving as a bus shelter. It is most likely a remnant of when Floyd Bennett Field was a naval air station as there is a much smaller, but similar structure near the greenhouse and archery range. Since the bus shelter is painted dark brown, the roof leaks, and it is difficult to see buses, people are rarely seen standing inside it, thereby defeating its purpose. There are Floyd Bennett Field personnel and visitors that arrive by bus and more may do so with improved facilities.

One of the biologists here started a campaign to have the bus shelter replaced working toward an in-house solution. For this project, I have held discussions with both the Metropolitan Transit Authority and New York City Department of Transportation (NYC DOT) to ensure the park follows the correct legal procedures to replace the shelter because it fronts a public roadway making it subject to NYC streetscape regulations. Indeed, after discussions with the NYC DOT's Bureau of Franchise, it was determined several permits are required should the existing shelter be altered in any way. The shelter being on

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federal property further complicates the situation. I organized a meeting between the Assistant Superintendent of Planning, the Bureau of Franchise, and myself. The group decided that if the federal government could grant an easement to NYC, then having the NYC DOT handle construction of the bus shelter is preferable from the park's perspective. At this time, the park's administration is looking into granting an easement or similar agreement.

Milestones

August 29, 2002	Project Initiation.
November 2002	Internal discussion between Unit staff brainstorming solutions
January 2003	Meeting with NYC DOT (Bureau of Franchising) – discussions held regarding location of bus shelters (Floyd Bennett Field) and easement issues.

Project 7 Ferry System Implementation

Overview

In the 1979 General Management Plan for Gateway NRA, alternative transportation systems, including an extensive ferry system linking the major park areas by water, were important components of the plan. Until several years ago, ferries were still just an idea. Then service between Manhattan and Sandy Hook began in the summer of 1997 and has continued each summer since. It was initially subsidized by the Statue of Liberty/Ellis Island ferries, but it is now self-supporting. Recently, two studies were funded by the NPS to examine the feasibility and impediments to creating a broader system¹ and then developing an implementation strategy.² Now the one-link ferry system will be expanded to multiple links over the next several years by a variety of agencies and concessionaires.

(1) Riis Landing – Battery Park. To improve connectivity between the park units and Manhattan, the National Park Service is implementing ferry service at Riis Landing. I am assisting in the design reviews and will work to incorporate this project into the broader JBU circulation plans.

During the past two summer seasons, boat excursions were run from Riis Landing. These excursions were quite popular with over 2,000 participants each summer. This coming year, ferry service between Riis Landing and Battery Park will be offered as a pilot project during the summer. The rehabilitation of Riis Landing is being funded in part by New York State ferry discretionary funds. The monies will pay for the construction of a floating dock and major repairs to the seawall/ breakwater. To create a self-supporting service, commuters will be encouraged to ride the Riis Landing-Battery Park ferries in addition to park visitors, both for a fee.

(2) Greening Education on Student Visitor Ferries to Gateway. As part of the Riis Landing reconstruction, the existing spud barge that boats dock at will be moved to Fort Wadsworth, Staten Island. Furthering the educational and alternative transportation goals of Gateway NRA, within 1 to 2 years Gateway will be promoting student travel to the Staten Island Unit via a Fort Wadsworth-Battery Park ferry to receive education, while en route, linked to the park's greening effort and the education center.

¹ US Department of Transportation Research and Special Programs Administration (Volpe National Transportation Systems Center). *National Parks of New York Harbor Waterborne Transportation Study*. Draft Final Report, April 10, 2001.

² Norris & Norris Associates. *NPS Gateway Parks of New York Harbor: Integrated Transportation Strategy and Implementation Plan*. Draft Final Report, October 2002.

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(3) Floyd Bennett Field – Battery Park. To bring business back to Manhattan and ease commuting from the outer boroughs since September 11, 2001, the Port Authority of New York and New Jersey is applying for \$1 million of Federal Emergency Management Agency (FEMA) funding to offer ferry service between Floyd Bennett Field and Battery Park. If granted, future links may include JFK International Airport and the Brooklyn Army Terminal.

Products

My work in this project is limited. I reviewed the draft studies mentioned, offered comments to the Gateway NRA Office of Planning & Professional Services and then participated in some meetings with Norris & Norris Associates. Then I reviewed the Riis Landing landside construction plans to improve pedestrian and driver circulation as discussed in Project 4. Finally, for the Floyd Bennett Field component, I participated in the Jamaica Bay Unit meeting and site visit with the Port Authority.

Milestones

August 26, 2002	Scholar Initiation in on-going project
August, October 2002	Meetings – Norris & Norris Associates study reviewed and revised.
Winter 2002/2003	NY State Monies received for Riis Landing renovations.
February 25, 2003	Meeting with Port Authority of NY/NJ. PA is applying for FEMA 9/11 dollars for Floyd Bennett Field-Battery Park ferry service. (Long-term expansion of service to JFK International Airport)
Spring 2003	Public Meeting held for land transfer of Riis Landing.

TASK C FLEET ASSESSMENT AND MANAGEMENT

Project 8 Jamaica Bay Unit Fleet Management

Overview

Fleet Assessment and Management - Jamaica Bay Unit-specific, possibly to be expanded parkwide. My first week here I had to review a report by an outside consultant, itemize findings and questions, then participate in a meeting to have the park's fleet greening needs properly addressed. As follow-up and expansion upon that initial task, the JBU Superintendent requested I create and facilitate a Fleet Management Task Force for the Jamaica Bay Unit of Gateway NRA to improve how our fleet is assigned, operated, and maintained. The Unit's goal is to reduce our overall fleet size and improve efficiency while greening it.

OBJECTIVE 1 – CREATE AND FACILITATE A FLEET MANAGEMENT TASK FORCE

To form a Task Force with a clear set of goals and products, I wrote a Task Directive that the JBU Superintendent signed off on which itemizes the scope of the task force, clear objectives, and concrete products. The Task Force was kicked off in November 2002. It has five members, BPD Manager Alexcy Romero to represent Operations, Calvin Clardy of Mechanized Operations to represent Maintenance, Purchasing Agent Eileen Fitzgerald to represent Administration, Kathleen J. Williams of the Jamaica Bay Institute for Sustainability issues, and myself as facilitator. Since November, facilitating the Task Force has included, creating all the objectives, running the meetings, and producing the products with the Task

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Force collecting data and providing feedback. In the next 2 months, the Task Force will shift gears and be required to take on more work, specifically writing the majority of the Fleet Management Manual.

OBJECTIVE 2 – DETERMINE WHAT THE UNIT HAS AND HOW MUCH IT COSTS, REPORT FINDINGS TO SENIOR STAFF

Vehicles are a necessary but very costly component of operating Gateway National Recreation Area. Annually, the Jamaica Bay Unit spends approximately \$394,200 to operate 125 vehicles annually – everything from purchases, maintenance, fuel, and tolls. In addition, the Unit not only owns vehicles but also leases vehicles – further complicating record keeping and decision-making. The above facts were discovered and calculated by me after having audited the vehicle-related financial records of the Unit for all of FY 2002. Spreadsheets were created to calculate the total costs as well as itemizing the monthly financial records of individual vehicles.

As a group, the Fleet Management Task Force was assigned by the facilitator to inventory all vehicles in the fleet in Fall 2002 while I designed and then created a Microsoft Access 2000 database to house the collected information. The database can now collect both static (for example, vendor purchased from, VIN #, make, model, fuel type) and dynamic (for example, fuel purchases, mileage accrual, and service histories) data about each vehicle in the fleet.

I entered and analyzed the vehicle data and then wrote the Task Force's first report on the existing conditions of the fleet with input from the Task Force on report layout and what summary information to include. The report was distributed to most of the Senior Staff.

Aside: The power of the database lies in the complex calculations and comparisons (either disaggregate or aggregate) that can be automated so as to produce useful regular (monthly, quarterly, yearly) and snapshot reports for review of the fleet to aid in decision-making.

For example, a simple query-based report can be generated that checks the age of each vehicle against its replacement age signaling to the reviewer that vehicles need to be replaced at a particular point in time.

As another example, a cross-tabulation report can be generated that compares the ages of vehicles in a particular vehicle class (e.g. light duty pick-up trucks, sedans) with their condition (e.g. excellent, good, fair, poor) to evaluate whether one class wears more quickly than another, or flagging classes that the park potentially wears out faster than is typically anticipated based on federal or private industry standards.

OBJECTIVE 3 – DESIGN A FLEET MANAGEMENT SYSTEM

The park currently does not have a fleet management system and based on the results of the Existing Conditions report, it needs one to reign in costs, improve efficient vehicle use through changes in vehicle assignments, and balance the fleet across vehicles' ages and conditions. Armed with the knowledge of the physical and financial status of the Unit's fleet, our Task Force deviated from the original Task Directive to focus on the fleet's management as a whole, or rather lack thereof, instead of composing a series of unrelated Standard Operating Procedures.

Similar to the vehicle data collection, the Task Force agreed upon interviewing each park office that handles one or more vehicle-related function – from procurement to maintenance to driver responsibilities. Based on the interviews currently underway and the research by the group on fleet management best practices (by other agencies, municipalities, and private companies), the Task Force is creating a Fleet Management Manual that will include new and revised Standard Operating Procedures (SOPs) for the Jamaica Bay Unit. The manual has six areas of focus: (1) Procurement, (2) Property Management, (3) Safety, (4) Assignee & Operator Responsibilities, (5) Maintenance, and (6)

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Replacement & Disposal. Greening goals are to be included where appropriate within each focus area. For example, in procurement as SOP is anticipated for purchasing only lawnmowers with 4-stroke engines, 2-stroke engines produce too many emissions and operate inefficiently. Another example, in Assignee & Operator Responsibilities an SOP is anticipated that limits the idling of vehicles, a chronic problem at the Unit especially during the winter months. In addition to new guidelines, the group is recommending the creation of a Fleet Manager position to oversee all fleet operations instead of 5 different offices doing bits and pieces of work without a cohesive management framework and no single person knowing the status of the entire fleet at any given time. The manual is planned to provide a position description for a Fleet Manager.

Products

- (1) Fleet Management Program Design Ideas – August 30, 2003: A 4-page paper outlining ideas and questions about managing a fleet and greening it based on my review of the Fleet Assessment by ASG Renaissance and discussions with the JBU Superintendent.
- (2) Task Directive - Fleet Management Task Force – October 30, 2002: Document requested by the JBU Superintendent to clearly state the purpose and products to be produced by the proposed task force. I created the Task Directive using sample ones to guide me.
- (3) Fleet Management Database: An extensive database that is able to collect both static (for example, vendor purchased from, VIN #, make, model, fuel type) and dynamic (for example, fuel purchases, mileage accrual, and service histories) data about each vehicle in the fleet. I created this database in MS Access from scratch. It is comprised of: 4 menus (“switchboards”) for navigating new users, 20 tables of stored data, 22 forms for data entry, 21 queries for searches/ sorts/ calculations, 19 reports to display the queried information, and 10 macros to automate tasks.
- (4) Fleet Management Report 1 – Existing Conditions – January 2003: A 19-page report based on analysis results of the database and the financial spreadsheets. I wrote this report and the Task Force reviewed it. It details the current composition and financial status of the fleet and the impacts of its current state. I created an Errata & Addendum the next day to correct a few errors and further extend the financial analysis based on replacement age variations.
- (5) Draft Fleet Management Plan – January 2003: Proposal outlining the development of a fleet management plan created by the Scholar for the JBU Management Analyst to use in the writing of a PMIS entry (PMIS 95737).
- (6) SOP Template – February 2003: I based this template on several existing SOPs to aid the Task Force in writing their manual sections. It includes the following standard sections: Introduction, Purpose & Goals, References (subsections for: Federal Regulations, NPS Directives & Guidelines, and Gateway NRA Policies), Policy (new policies to be followed), Procedures (how to set the policies in motion), Necessary Forms & Documents, Contacts, and Definitions. I gave a brief description of what to include in each section and how it should be formatted.
- (7) JBU Interoffice Memo: Immediate Reduction in GSA Vehicles – March 28, 2003: I calculated the costs of all the JBU GSA vehicles individually to determine their annual costs. Based on the annual costs and the needs of the unit, 7 of the vehicles were excessed.
- (8) Questions for Site Visits – April 2003: The task force brainstormed and reviewed several documents, coming up with a list of over 200 questions organized into 13 categories such as “Fleet Financial Information”, “Determination of Need, Fleet Composition”, and “Vehicle Replacement and Disposal”. The task force then created subsets of questions to ask each of five departments in the park (JBU Administration, JBU Maintenance, JBU Facility Management, Gateway HQ Property Office, Gateway HQ Contracting Office) during site visit interviews.

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(9) Fleet Management Site Visit Summary 1: Facilities Management Office – April 16, 2003: 5-page document I wrote to assist the Task Force in recognizing the relevant pieces of the interview and where they might fit into the manual and fleet manager position description.

(10) JBU Interoffice Memo: Tentative Outline – Fleet Management Manual of SOPs – April 29, 2003:

The final product by the Fleet Management Task Force while I am facilitator is to be a draft Fleet Management Manual. The final product by me is to be the Fleet Management Database with clear direction given for its expansion so that it can fully support the Unit's proposed fleet management activities.

Milestones

August 26, 2002	Project Initiation.
September 4, 2002	Meeting with JBU Superintendent – procurement regulations, fleet analysis strategy, and setting up of a fleet management task force discussed.
November 13, 2002	Fleet Management Task Force created and initial meeting held.
November – December 2002	All Task Force members collect vehicle data for a fleet inventory.
November 2002 – January 2003	Scholar designs, creates Fleet Management Database. Adds all vehicle data. Analyzes data for report.
January 14, 2003	Fleet Management Task Force's 1 st Report: Existing Conditions is distributed to Senior Staff.
January 30, 2003	Task Force deems regulations overhaul critical. Task Force outlines a Fleet Management Manual.
January – February 2003	Task Force members research Fleet Management techniques, best practices.
March 13, 2003	Task Force recommends TH!NK <i>neighbor</i> vehicle assignments and charging station locations. Scholar finalizes GSA vehicle reductions after initial research and Asst. Sup. meets with Managers.
April 16, 2003	Site Visit 1 of 5: Task Force Site Visit with Facility Management Office. Questions answered as to Office's fleet involvement.

Anecdote

It is important to keep track of a fleet – to know what vehicles are in it and who is driving what – for safety, efficiency, and costs. Fact or fiction? There is an unconfirmed rumor at Floyd Bennett Field that a stainless steel Delorian is under wraps in one of the Hangars. If the unit ever finds the car, then auctioning it off and spending the proceeds on new, useful, and greener vehicles could really improve the fleet. No sightings yet.

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Project 9 TH!NK *neighbor* Vehicle Delivery & Implementation

Overview

Gateway NRA is one of the few national parks that Ford Motor Company has donated TH!NK *neighbor* vehicles to through the National Park Foundation's Proud Partner Program. Ford Motor Company donated a total of 500 of these nifty Zero Emissions Vehicles (ZEVs) and Gateway received 53, approximately 10 percent.

The park was already granted the donation when I was initiated into the project. From September through November, I assisted in the delivery negotiations between Ford's Th!nk Mobility group, the local car dealership (Manhattan Ford), the National Park Foundation, and Gateway NRA. To ready Gateway's personnel for the arrival of these unique vehicles, I researched and gathered information on their operation, charging, storing, and maintenance needs. I then distributed information packets to the key personnel at each of the 3 park units.

After all deliveries were made, I organized a training day for Gateway NRA personnel. On February 27, 2003, approximately 30 personnel took part in the training. Representatives from the National Park Foundation, Ford Motor Company, and Ford's TH!NK Mobility group trained park personnel discussing the vehicle's features, operation, and charging. Following the talks, participants test-drove the vehicles. I took about 10 pictures of the event and show the best four in Appendix D.

The TH!NK *neighbor* vehicles are now in use at the Staten Island and Sandy Hook units. In March 2003, the JBU Fleet Management Task Force assigned the 18 TH!NKs at JBU to various offices and decided upon charging locations. At this time, two work orders exist and need completion before full operation of TH!NKs can begin at JBU: (1) delivery of the vehicles to each of the JBU sites and (2) installation of charging stations at each location by an electrician.

Obstacles

- ❖ Vehicles could not be directly delivered to Sandy Hook Unit because it is located in New Jersey, not New York.
- ❖ The JBU electrician was called up for military duty in the recent war on Iraq.
- ❖ The local Ford dealer contact changed midway through negotiations resulting in the dealer being unable to be the primary trainer. Instead, to the park's ultimate benefit, one of the TH!NK designers became the primary trainer, David Fabricatore.
- ❖ The U.S. government took an extended amount of time to print and deliver the license plates, holding up delivery.

Products

This project has been the one with the most visible products. The vehicles were delivered! The vehicles are in operation at 2 of the 3 units!

- (1) 53 TH!NK *neighbor* vehicles successfully delivered and the majority currently in operation.
- (2) TH!NK *neighbor* vehicles entered into the JBU Fleet Management Database.
- (3) TH!NK *neighbor* vehicle Training Session – February 2003: Memo and notice inviting personnel.

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(4) E-mail: TH!NK *neighbor* Vehicle Training Workshop – February 27, 2003: Thank you letter to all participants and presenters. I included the four best photos I took during the event. And a list of the key things to remember from the training was included as a quick reference for all participants.

(5) JBU Interoffice Memo: Tentative TH!NK *neighbor* Vehicle Assignments and Charging/ Parking Locations – March 14, 2003: Vehicle assignments determined by the Fleet Management Task Force.

(6) TH!NK *neighbor* vehicle log book form created – April 2003: To comply with the data needs of the National Park Foundation at both the 6-month and 12-month assessments while also meeting the fleet management goal of tracking vehicle use, I created a form for TH!NK vehicle drivers to log their trips.

Milestones

August 26, 2002	Scholar Initiation in ongoing project.
September – November 2002	Negotiations between Gateway NRA, the National Park Foundation, Ford's TH!NK Mobility Group, and the local dealership (Manhattan Ford).
December 12, 2002	First TH!NK <i>neighbor</i> vehicles delivered to Gateway National Recreation Area.
December 19, 2002	Drove my first TH!NK <i>neighbor</i> vehicle during the 2 nd delivery to Floyd Bennett Field.
February 27, 2003	TH!NK <i>neighbor</i> vehicle Training Workshop
March 13, 2003	Fleet Management Task Force recommends TH!NK <i>neighbor</i> vehicle assignments and charging station locations for JBU TH!NKs.

Next Steps

The 6-month and 12-month vehicle use assessments must be prepared for the National Park Foundation. To streamline this data collection process, the spreadsheets have been edited with the park's TH!NK *neighbor* vehicle identification information and a logbook form has been created to collect mileage and trip purpose information. Both are being distributed to each unit for completion.

TASK D SMALLER PROJECTS (NOT PROGRAMMED AT OUTSET)

For me, working for eight months at an agency means getting involved with the personnel and assisting in a variety of ongoing and new projects that have a full or tangential relation to my current project work and/or my areas of expertise. This scholarship was no exception. Furthermore, as I worked, I came up with additional project ideas for future scholars or myself to pursue. Since the projects listed below were not part of the original scope of work, they are only briefly described herein.

Project 10 Federal Lands Highway Project Scoping Meetings & Site Visit

Overview

In December 2002, Federal Lands Highway (FLH) sent a team to Gateway NRA to review projects they had already scoped, assess their priority rankings, and view potential projects for inclusion in scoping and funding. Two types of projects were eligible, transportation studies and design projects (funded from concepts through construction documents).

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The FLH team had viewed Sandy Hook, then came to Jamaica Bay. The JBU Assistant Superintendent of Planning and I briefed them on what we saw as potential projects in the Jamaica Bay Unit. Following the briefing, I gave the FLH team a tour accompanied by Gateway's Civil Engineer. At each potential project site, I described in detail and showed them the transportation issues that needed to be addressed. Gateway's Civil Engineer added two projects at Fort Tilden to the list and led that part of the tour. In the afternoon, we reconvened with the JBU Assistant Superintendent of Planning joined by the JBU Superintendent and NSD Manager. All potential projects and how they tied into FLH's programs were reviewed. Eight of JBU's potential projects are to be funded. At the start of the day, only one or two JBU projects were on FLH's list, so the meetings and tour proved fruitful.

List of Approved Projects

Our lobbying and my detailed tour at JBU paid off! Eight (8) projects, both transportation studies and design work, will be conducted and paid for by Federal Lands Highway (FLH) benefiting the Jamaica Bay Unit of Gateway National Recreation Area. The projects are listed in order of FLH priority.

- (1) Transportation Study of Riis Landing for commuter parking, bus circulation, ferry dock, and access to park sites.
- (2) Transportation Study of separating park users from park tenants by opening and adding a signal to the North Entrance at Floyd Bennett Field.
- (3) Transportation Study of entrances at Pennsylvania Avenue and Erskine Street for the Fountain Avenue and Pennsylvania Avenue Landfills being converted to low-use parklands.
- (4) Transportation Study of westbound exit from Beach Channel Drive to Jacob Riis Park.
- (5) Design Project for Fort Tilden to patch damaged concrete pavement on Davis Road and Heinzelman Road and solve the drainage problem at the intersection of Davis Road and Barrett Road. Estimated construction cost: \$325,000.
- (6) Design Project for Jacob Riis Park. Repair of approximately 25 concrete slabs in the parking lot. Estimated construction cost: \$200,000.
- (7) Design Project for Floyd Bennett Field. Reconstruction of the Ryan Visitor Center front parking lot with brick patterned asphalt to recall the original historic brick pavers while improving the sub-base. Estimated construction cost: \$800,000.
- (8) Design Project for Floyd Bennett Field. Overlay parking lot of Community Garden and correct drainage on south side of Taxiway 10. Estimated construction cost: \$100,000.

Project 11 Other Vehicle Donations – Ford Hybrid SUVs, Tricycles

Overview – Ford Hybrid SUVs

Gateway National Recreation Area has already begun to benefit throughout the park from the TH!NK *neighbor* vehicles donated by Ford Motor Company. Their movements are constrained, however, since they cannot be driven outside of the park's borders with the adjacent high-speed roads. Therefore, greening the park's vehicles further is possible, but keeping full mobility means a different kind of vehicle is necessary. Therefore, I am working toward winning Gateway NRA another vehicle donation from Ford, the versatile hybrid Escape SUVs.

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Overview – Tricycles

The Jamaica Bay Unit has sharply cut their vehicle-leasing budget to meet Gateway's budget crunch. Hence, approximately 7 vehicles were excessed, impacting the ability of personnel to attend meetings and accomplish tasks. The TH!NK *neighbor* vehicles have helped the units meet their in-park travel needs. And the Fleet Management Task Force is proposing that telephone and video conferencing as well as net meetings be increased to replace trips, however, a streamlined system is a few years in the making. The peak season is imminent while little relief exists – starting at the end of May, the peak season begins and the park's employee population approximately doubles. Most of these seasonal employees are lifeguards and laborers performing lawn/ garden/ trail work along with garbage details. The laborers need to travel from site to site with some equipment; however, their contracts require they not drive.

With such a large park area and so many visitors, the park's Fleet Management Task Force and Green Team have been jointly researching alternate modes of transportation for our personnel to utilize. I have focused on how tricycles fit many of Gateway's goals:

- Improve efficiency since laborers can travel on their own, instead of a work leader shuttling them.
- Reduces emissions by replacing motorized vehicle miles with human-powered miles, these are true Zero Emissions Vehicles.
- A drivers license is not required, an important benefit when so many NYC residents, and hence our personnel, do not drive.
- Knowing how to ride a bicycle is not necessary since 3-wheelers are self-balancing.
- They are quieter and smaller than motorized vehicles. They can travel on beach boardwalks and groomed trails without disrupting visitors while allowing improved accessibility and visibility of park personnel.
- The cargo baskets enable Park Rangers running a program in the field to bring materials to the site.
- Operable at least half of the year, during the park's busiest seasons.
- Inexpensive compared to a motorized vehicle. Budget conscious.
- Personal fitness is built into operation, forwarding NPS employee goals.

This is both a pragmatic and green pilot project that, if successful, could make tricycles a staple of our vehicle fleet (as they were 20 years ago!) and be expanded parkwide. So I am working with the two teams listed above and the National Park Foundation to solicit tricycle donations. I am at the letter drafting and company researching stage.

Project 12 2003 Proud Partner Transportation Interpreter Program Orientation & Workshop – Presenter

I have agreed to expose incoming 2003 Transportation Interpreters to the alternative transportation projects ongoing at Gateway National Recreation Area and give them a taste of what a transportation engineer and planner accomplishes on a daily basis in and out of a national park setting. I will be covering all of the transportation projects in this final report as well as transportation projects that are occurring at Staten Island and Sandy Hook. When addressing the group, I hope to show the Transportation Interpreters how their upcoming work and input could further the transportation goals of national parks.

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Project 13 Civil & Transportation Engineering Projects for the Jamaica Bay Unit

Civil & Transportation Engineering Project Ideas for the Jamaica Bay Unit – February 2003. Report developed by me for the JBU Assistant Superintendent of Planning. Six projects are detailed in terms of: desired products, necessary tasks, timeframe/scheduling, educational background (necessary for scholar), and supervision/staff requirements by JBU personnel. This document was used in preparation of the Transportation Scholar new and extension applications and is planned as a reference for future project work by others.

Project 14 Active Participation in the Gateway Green Team and the Jamaica Bay Unit Green Team

Gateway NRA is striving to be a greening and sustainability innovator through all actions – from recycling to pollution control to facilities management. To guide greening activities and education, a Gateway Green Team was formed. I have actively participated in two projects as a member of the team, creation of the Green Plan and the Climate Friendly Parks Initiative.

Overview – The Green Plan (Team Effort)

The team is creating a plan, the Green Plan, which I have been one of the reviewers for. I proposed that the following goals/elements be included in the Sustainable Transportation program:

- ❖ Reduction in Vehicle Miles Traveled (VMT). I recommended the addition of VMT reduction to be proactive in the larger goal of reducing both employee and visitor travel within the park. This may incorporate shuttle system development/ expansion, switches to alternative transportation (such as bicycles) by visitors near the main gates, and improved sidewalk/ trail systems for more pedestrian travel.
- ❖ Traffic Impact Analysis Studies with Trip Reduction Requirements for All Development. I am not fully versed in current NPS regulations, but based on my review of a recent land assignment prospectus, I recommended this item that is common in the private sector. To effectively plan for transportation and make a long-term impact on trips to/from the park and within the park it is wise to begin requiring traffic impact analysis studies (TIAs). For those unfamiliar, a TIA is a short study which details current and future traffic conditions with and without a proposed project (traffic volumes, daily/seasonal variations, growth, intersection operations). The TIA as its title suggests, shows readers the impact a project will have on the roads/ intersections within and around the park. Mitigation must be recommended. The Trip Reduction Requirement idea builds on the TIA – Cape Cod has a good, strong, program in place requiring all new development and reuse greater than a certain size (Developments of Regional Impact) to reduce the projected number of trips by a minimum of 20% through transit and alternative transportation projects and funding by the developer (here, NPS or a concessionaire).
- ❖ Fleet Management with a focus on reduction, efficiency, and greening. As discussed in Project 8, good management can not only save the park money, but green it too.

Overview – The Climate Friendly Parks Initiative (Team Effort)

The National Park Service is working jointly with the Environmental Protection Agency (EPA) to quantify and then track greenhouse gases (GHGs) to reduce those produced within and by national parks. Gateway NRA is the first pilot park to undergo the process.

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OBJECTIVE 1 – QUANTIFYING EMISSIONS

In February 2003, Gateway was issued an Emissions Inventory workbook of 9 spreadsheets by ICF Consulting, Inc. (the analyst subcontracting to the EPA) to complete within approximately 10 days. I was the Point Person for the Jamaica Bay Unit, contacting and coordinating data collection by 14 personnel in the unit, then compiling and transmitting the emissions data back to the Gateway Green Team.

Aside: Completing the CFPI emissions inventory was an instance the Sign Inventory Tracking Database proved useful. By printing one of the underlying tables (RouteID), I instantly had a list of all roads in the 3 major areas of the unit that yielded most of the data necessary for the Mobile - Highway Vehicles spreadsheet, General Highway section. My inventory notes filled in the rest of the highway data.

Aside: Completing the CFPI emissions inventory was the first instance the new Fleet Management Database proved invaluable. It saved the unit a lot of time because it took only a one query to yield the data necessary for the Mobile - Highway Vehicles spreadsheet, Park-Owned Vehicles section.

OBJECTIVE 2 – WORKSHOP PLANNING

The emissions inventory was for the quantifying GHGs stage of the process. To move into the tracking and reducing stage, the process calls for hosting a workshop to education and train personnel. For this stage, I am on the Organizing Committee planning the 2-day workshop (June 4-5, 2003) and acting as a reviewer of various report outlines.

Project 15 Archery Shade Structure Design

On Floyd Bennett Field, there is a small archery range on the eastern side. Currently at the range, there are targets, one or two picnic tables, and a portable toilet. It is an open area surrounded by brush offering little or no shade or wind protection. Therefore, I have been asked to design a shade structure from which the archers could shoot. To this end, I have researched (online) shooting ranges and shade structures while also observing the archers at the range. I have rough-sketches a structure and will soon work on a final design primarily made out of recycled materials.

Project 16 Program Information & Visitor Statistics Database

The JBU Office of Interpretation must compile monthly statistics from all park sites and generate both monthly and annual reports detailing the types of programs that were offered (i.e. formal interpretation, demonstrations/performances, special events), how many visitors attended each program, the number of staff running each program, and how many hours they worked, translating that into program costs. Park Ranger Kathy Krause is responsible for this task. This is a perfect job to automate with a database to reduce errors and missing data while reducing paper by distributing the database to the personnel compiling the data instead of them writing events down and then sending a pile of paper to Ranger Krause to organize and summarize. At the request of Ranger Krause, once a week from January to March 2003, I worked closely with Ranger Krause to design a small database that compiles information on programs given by the park's rangers, volunteers, and outside groups. We jointly agreed on a design, I created the database and trained Ranger Krause on operating a database in MS Access.

The database has one main data entry form with lots of pop-ups and definitions that show up during data entry; one park site has a form tailored to its school group-oriented needs. There are approximately five

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reports that I created for each park site to print out as desired for a given date range. Each report sorts and/or counts the data in different manners depending on purpose. Moreover, to ease the monthly transfer of data from each site to the master, I created an automated data query and export procedure.

In March, we held a meeting to show the appropriate unit personnel the database – discussing its purpose, how to use it, and their new procedures. This database is currently distributed to five sites and in operation. Ranger Krause operates the master database and we are currently working on the annual report's design and calculations. A sample of the database is in Appendix D.

APPENDICES

Appendix A Timelines of Major Projects

Appendix B Photos

Appendix C Weekly Progress Reports

Appendix D Project Reports & Products

Appendix E Press Releases & Media Coverage of Events

Appendices A & B typically included with report text. All other appendices are available upon request.